A Compact Stance Guide and Method of Use

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CROSS REFERENCE TO RELATED APPLICATION

(001) This application is the continuation-in-part of thus claims the benefit of the following US patent application, hereafter referred to as Wu application 10/817,340:

Title: A Stance Guide and Method of Use. Inventors: Chang JY Richard Wu et al, U.S. Application No. 10/817,340, Filing date: Apr. 3, 2004.

Additionally, this application also incorporates by reference the above US patent application. Hence, inter alia, any references made to a figure that is within the range of from **Fig. 1** to **Fig. 6** should be understood to refer to a figure that is part of the Wu application 10/817,340.

BACKGROUND OF THE INVENTION

Field of the Invention

(002) The present invention relates generally to the field of exercise apparatus. More particularity, the present invention is directed to stance guides for helping the user achieve and hold stances for corresponding health benefits.

Description of the Related Art

(003) Numerous exercise equipments are available in the market today for a variety of human exercises. Typically a person, as for example in the case of a weight-lifting machine, performs a pre-determined sequence of movements while interacting with and moving certain parts of the exercise equipment to achieve corresponding health benefits. On the other hand, numerous other pseudo-static or even static forms of exercises either exist or are being discovered that also provides the person with health benefits. For

example Tai-Ji Chuan from China, also known as shadow boxing, is a pseudo-static exercise known to benefit a person's body flexibility and general health. For another example, Yoga can be classified as a static exercise known to benefit a person's body flexibility and mental clarity. While it is not absolutely required to have an equipment accompanying the pseudo-static or static stances of these exercises, in many cases it is nevertheless helpful or even highly desirable to provide an accompanying equipment to guide and assist the user so as to increase the easiness and efficiency for achieving these stances. This becomes particularly important where achieving and holding certain specific stances are physically strenuous. For reasons of low product cost and easy handling, it is also desirable that the accompanying equipment to be compact in size.

SUMMARY OF THE INVENTION

(004) A compact stance guide and method of use are proposed to help the user achieve and hold one or more stances Sj, where j = (1, 2, . . . N) and N >=1, so that the achievement and holding of each Sj provides a corresponding health benefit to the user.

(005) The compact stance guide includes a foot engaging device for guiding and engaging at least one foot of the user, a body engaging device for guiding and engaging at least one part of the user body and a framing structure connected to the foot engaging device and the body engaging device. Importantly, at least part of the foot engaging device, the body engaging device or the framing structure are objects in pre-existence and made for another purpose hence the thus formed stance guide is perceptually compact in size.

(006) Various structural dimensions of the foot engaging device, the body engaging device and the framing structure relevant to guiding and engaging the user's feet and body are made adjustable to accommodate a range of body and feet variation of the user population.

(007) The body engaging device also includes a hand engaging device for guiding and

engaging the user's hand and a safe guard device for reducing the risk of an accidental fall of the user while trying to achieve and hold the stances. In a specific embodiment, the hand engaging device is an adjustable hand loop.

(008) For the health benefit to be significant, the method of using the compact stance guide further includes, for each stance Sj, a recommended range of holding period per practice and practicing frequency.

(009) A first set of specific stances S1, S2, S3 and S4, together with an associated first specific compact stance guide, are proposed to more easily and efficiently provide the health benefits of direct development of stronger body muscles and better body flexibility and indirect strengthening of the bladder muscles and nerves causing a reduction of frequent and excess habitual urination. The compact stance guide includes a separate feet board having a front and a rear foot panel, two elbow-engaging members, a balancing bar for mounting the elbow-engaging members. The balancing bar is extensible and has two ends for engaging two separated, opposing vertical surfaces of a preexisting object for support. The preexisting object also has a third bottom surface for placing and supporting the separate feet board. Some examples of the preexisting object are a door frame, a hallway and two trees separated by a ground in between.

(010) A second set of specific stances S5, S6, S7 and S8, together with an associated second specific stance guide, are proposed to more easily and efficiently provide the health benefits of direct development of stronger body muscles and better body flexibility and indirect enhancement of sleep quality and reduction of body weight. Except for the separate feet board having three foot panels and that the balancing bar further including two end grips for positioning the user's hands of stances S5 and S6 through fist gripping, the second compact stance guide is the same as the first one.

(011) To the accomplishment of the above and related objects, this invention may be embodied in the form illustrated in the accompanying drawings, attention being called to the fact, however, that the drawings are illustrative only, and that changes may be made

in the specific construction illustrated.

BRIEF DESCRIPTION OF THE DRAWINGS

(012) Various other objects, features and attendant advantages of the present invention will become fully appreciated as the same becomes better understood when considered in conjunction with the accompanying drawing, in which like reference characters designate the same or similar parts throughout the several views, and wherein:

Fig. 7 illustrates a stance S4 together with a corresponding compact stance guide and a preexisting object of the present invention, for the user to use thus achieving and holding S4 plus its intermediary stance S2 to realize a corresponding health benefit;
Fig. 8A and Fig. 8B illustrate the top view of a variation of the compact stance guide and the preexisting object of Fig. 7; and
Fig. 9A and Fig. 9B illustrate the front view and the top view of only the compact stance guide of Fig. 8A and Fig. 8B.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

(013) In the following detailed description of the present invention, numerous specific details are set forth in order to provide a thorough understanding of the present invention. However, it will become obvious to those skilled in the art that the present invention may be practiced without these specific details. In other instances, well-known methods, procedures, materials, components and circuitry have not been described in detail to avoid unnecessary obscuring aspects of the present invention. The detailed description is presented largely in terms of simplified perspective views. These descriptions and representations are the means used by those experienced or skilled in the art to concisely and most effectively convey the substance of their work to others skilled in the art.

(014) Reference herein to "one embodiment" or an "embodiment" means that a particular feature, structure, or characteristics described in connection with the embodiment can be included in at least one embodiment of the invention. The

appearances of the phrase "in one embodiment" in various places in the specification are not necessarily all referring to the same embodiment, nor are separate or alternative embodiments mutually exclusive of other embodiments. Further, the order of process flow representing one or more embodiments of the invention do not inherently indicate any particular order nor imply any limitations of the invention.

(015) Fig. 7 illustrates the stance S_4 **4** together with a corresponding compact stance guide and a preexisting object of the present invention, for the user to use thus achieving and holding. Corresponding to the stance S_4 **4**, the compact stance guide includes a separate feet board **100e** that in turn includes a front foot panel **100a**, a center foot panel **100b** and a rear foot panel **100c**. All foot panels **100a**, **100b** and **100c** are oriented and located substantially along the x-axis and spaced apart from each other by, although not shown here for simplicity, an adjustable x-spacing for guiding and correctly positioning the user's feet. Notice that an extra front foot panel **100a** is also included for additional flexibility of the compact stance guide. Thus, the user can alternatively engage his feet upon the front foot panel **100a** and the rear foot panel **100c**. Hence, the separate feet board **100e** provides the function of foot engagement and guidance for the stance S_4 **4**. To engage and guide the user's body under stance S_4 **4**, an adjustable left elbow-engaging member **120a**, an adjustable right elbow-engaging member **120b** and a fixed safety hand-engaging guard **120e** are provided. Notice that the fixed safety hand-engaging guard **120e** can alternatively be implemented as an adjustable safety hand-engaging guard **120c** of Fig. 2D. An optional display device **120d** is also included for displaying, for example, the duration of correctness of engagement of the user's feet and this was already described in Wu application 10/817,340. In essence, the elbow-engaging members **120a** and **120b**, the fixed safety hand-engaging guard **120e** and the display device **120d** are attached to a balancing bar **140a**. The balancing bar 140a can include a left end grip 140b and a right end grip 140c for helping the user to mount and dismount the stance guide. To engage and guide the user's body under stance S_2 **2**, the balancing bar **140a** acts to engage and guide the formation and positioning of the user's hands **40** and **42**, both made into a gripping fist with palm side up as illustrated in Fig. 2A. Hence, the elbow-engaging members **120a** and **120b**, the fixed safety hand-engaging guard **120e** together with the

balancing bar **140a** provide the function of body engagement and guidance for the stances S2 **2** and S4 **4**.

(016) Focusing now on an important aspect of the present invention by comparing Fig. 7 to Fig. 2D and Fig. 2A. To complete the compact stance guide under the present invention, the framing structure of Fig. 2A, having a connected set of left supporting truss **140d**, a right supporting truss **140e** and a bottom supporting truss **140f**, is now replaced with a preexisting object that is a door frame having a top door frame **150b**, a left door frame **150a**, a right door frame **150c** and a bottom door frame **150d**. Correspondingly, the balancing bar **140a** is provided with two end engaging devices that are, respectively, a left mounting flange **160a** with two mounting screws **162** and a right mounting flange **160c** with two mounting screws **162** for supporting the balancing bar **140a** upon the left door frame **150a** and the right door frame **150c**. Notice that the length of the balancing bar **140a** is adjustable, to be presently described in more detail, so as to provide a snug engagement to the door frame. It is also remarked that the mounting height of the balancing bar **140a** within the door frame can be adjusted to suit the user's body height as well. Of course, the bottom door frame **150d** works for placing thus supporting the separate feet board **100e**. For those skilled in the art, the preexisting object can be of a variety as long it serves the intended function of replacing the framing structure. For example, the preexisting object can be a hallway instead. For another example, the preexisting object can even be two trees separated by a ground outdoors. Additionally, the portion of the compact stance guide replaced by the preexisting object does not have to be limited to the framing structure. For example, the balancing bar **140a** can be replaced by a preexisting exercise bar in the park. It is further remarked that the end engaging devices do not have to be implemented with the mounting flange with mounting screws either. For example, the implementation can be a mounting flange with adhesive or even a magnetic mounting plate should the door frames **150a** and **150c** be made of iron or steel, more example to be presently described. In essence, by substituting preexisting objects for a portion of the stance guide, the thus formed stance guide becomes lower in cost and also perceptually more compact in size to the user while serving the same function as before. It should also become clear by now that the compact stance guide as described in Fig. 7 will also work for stances S1, S2 and S3. Furthermore, although not

shown here for simplicity of presentation, by adding two end grips to the balancing bar **140a** with each end grip pointing in the negative x-direction for correctly positioning the user's hands of stances S5 and S6 through fist gripping, the compact stance guide will also work for stances S5, S6, S7 and S8.

(017) Fig. 8A and Fig. 8B illustrate the top view of a variation of the compact stance guide and the preexisting object of Fig. 7. Notice that, as illustrated, the length of the balancing bar **140a** is adjustable so as to provide a snug engagement to the left and right door frames **150a** and **150c** of the door frame. The left-hand portion and the right-hand portion of the balancing bar **140a** are joined with a compression spring **143** with the y-position of the right-hand portion lockable through a combination of locking pin **144** and sliding slot **142**. The two end engaging devices of the balancing bar **140a** are implemented with a left resilient bump **145a** and a right resilient bump **145c**. In Fig. 8A the compression spring **143** is locked in a highly compressed state hence the overall length of the balancing bar **140a** is set to be less than the clearance between the left and right door frames **150a** and **150c**. However, in Fig. 8B the compression spring **143** is released from its previous highly compressed state hence the overall length of the balancing bar **140a** is now expanded to snugly fit the clearance between the left and right door frames **150a** and **150c** with a corresponding deformation of the resilient bumps **145a** and **145c**.

(018) To summarize with clarity, Fig. 9A and Fig. 9B illustrate the front view and the top view of only the compact stance guide of Fig. 8A and Fig. 8B. Again, it should be appreciated that the thus formed compact stance guide becomes lower in cost and also perceptually more compact in size to the user while serving the same function as before.

(019) As described with numerous exemplary embodiments, a compact stance guide and method of use are proposed to help the user achieve and hold a number of stances Sj, where j = (1, 2, . . . N) and N >=1, so that the achievement and holding of each Sj provides a corresponding health benefit to the user. However, for those skilled in this field, these exemplary embodiments can be easily adapted and modified to suit additional applications without departing from the spirit and scope of this invention. Thus, it is to be understood that the scope of the invention is not limited to the disclosed embodiments. On the contrary, it is intended to cover various modifications and similar arrangements

based upon the same operating principle. The scope of the claims, therefore, should be accorded the broadest interpretations so as to encompass all such modifications and similar arrangements.